

Work Order ID 154279***154279***

Page 1

Wednesday, December 07, 2016 11:09:37 A

Item ID: 644.4104

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: FWD Bracket Assembly

Start Date: 12/23/2016 Start Qty: 7.00

7

Cust Item ID:

Required Date: 12/23/2016 Req'd Qty: 7.00

7

Customer:

Reference:

Approvals:

Process Plan:

DAS

Date:

DEC 07 2016

Tooling:

Date:

Run Start

NR1

QC:

21

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

644.4100

F2

110

0.00

110

Small Fab

Memo

0.23

Small Fab

ASSEMBLE BRACKETS WITH RIVETS AS PER DWG

7x

17/03/15
DAS 36 9-89

120

QC5- Inspect part completeness to step on W/O

0.00

120

QC

Memo

0.02

Quality Control

7

16 2017
DAS 36 9-89

130

Identify as per dwg & Stock Location: GA

0.00

130

Packaging

Memo

0.02

Packaging

DAS
30
9-89

7

MAR 16 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																		
Description Work Order Deviation				Disposition				Completed By																	
								Lead hand / Supervisor Approval Verification																	
								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																							
Misidentified ☐	Past Due ☐																								

Work Order ID 154279***154279***

Page 2

Wednesday, December 07, 2016 11:09:37 A

Item ID: 644.4104 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: FWD Bracket Assembly
Start Date: 12/23/2016 Start Qty: 7.00 ***7*** Cust Item ID:
Required Date: 12/23/2016 Req'd Qty: 7.00 ***7*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.12							
Quality Control									

MAR 16 2017

DAS
21
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td style="border: none;"></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																		
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation		Disposition		Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER :																					

Picklist Print

Wednesday, December 07, 2016 11:09:40 AM

Page 1

Work Order ID: 154279

154279

Parent Item: 644.4104

644 4104

Parent Item Name: FWD Bracket Assembly

Start Date: 12/23/2016

Required Date: 12/23/2016

Start Qty: 7.00

Required Qty: 7.00

Comments: IPP REV:A 16.12.06 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
644.4116 *644 4116* Bracket (Small) Fwd		Purchased	No				Each	0.0000	**	7 154346		FEB 02 2017	
644.4117 *644 4117* Bracket, Fwd Pivot		Purchased	No				Each	0.0000	**	7 154347		MAR 15 2017	DAS 6
MS20426AD5-8 *MS20426AD5-8* RIVET		Purchased	No				Each	974.0000	**	42		FEB 02 2017	
				<u>Location</u>		<u>Loc Qty</u>	<u>Loc Code</u>						
				ST311		974							
				4533		47	47						
				m136199		927							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO. 04489

SHEET 1 OF 1

DWG NO. 644,4100

REV: F

PREPARED BY:

J. BECKER

DATE: 04/08/14

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR

MFG

QC

EFF:

NEXT ORDER

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: UPDATE NOTE 4, FINISH SPECIFICATION.

NOTES:

1. IDENTIFY ALL PARTS IN ACCORDANCE WITH MPP-120
2. MATERIAL: 2024-T3 ALUMINUM
3. MATERIAL: 6061-T6 ALUMINUM
4. FINISH IAW MPP-172 SECTION 2.1, SECTION 3.1, SECTION 4.1, SECTION 5.2.
5. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 1/4" GASKET PUNCH
6. MATERIAL: MDS-FILLED NYLON 6/6 SHEET, CUT OD CIRCLE USING 2" GASKET PUNCH, CUT ID HOLE USING 5/16" GASKET PUNCH
7. DIMENSION VALUE HAS FINISH COATING OF 6-10 MIL (.006-.010) TAKEN INTO CONSIDERATION
8. ADD ADDITIONAL WASHER UNDERNEATH CASTLE NUTS IF NECESSARY.
9. FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III CLASS 2, COLOR BLACK.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 154279 MJS
161207

SHEET 1, NOTES IS:

DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUC ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04286

SHEET 1 OF 1

DWG NO. 644.4100

REV: F

PREPARED BY J. SOTO

DATE: 12/04/2013

EFFECT ON DWG
☐ INC. ☒ UNINC.

DWG TITLE: PIVOT STEP ASSY

APPROVED BY:

ENGR *[Signature]*

MFG

[Signature]

QC

EFF.

NEXT ORDER

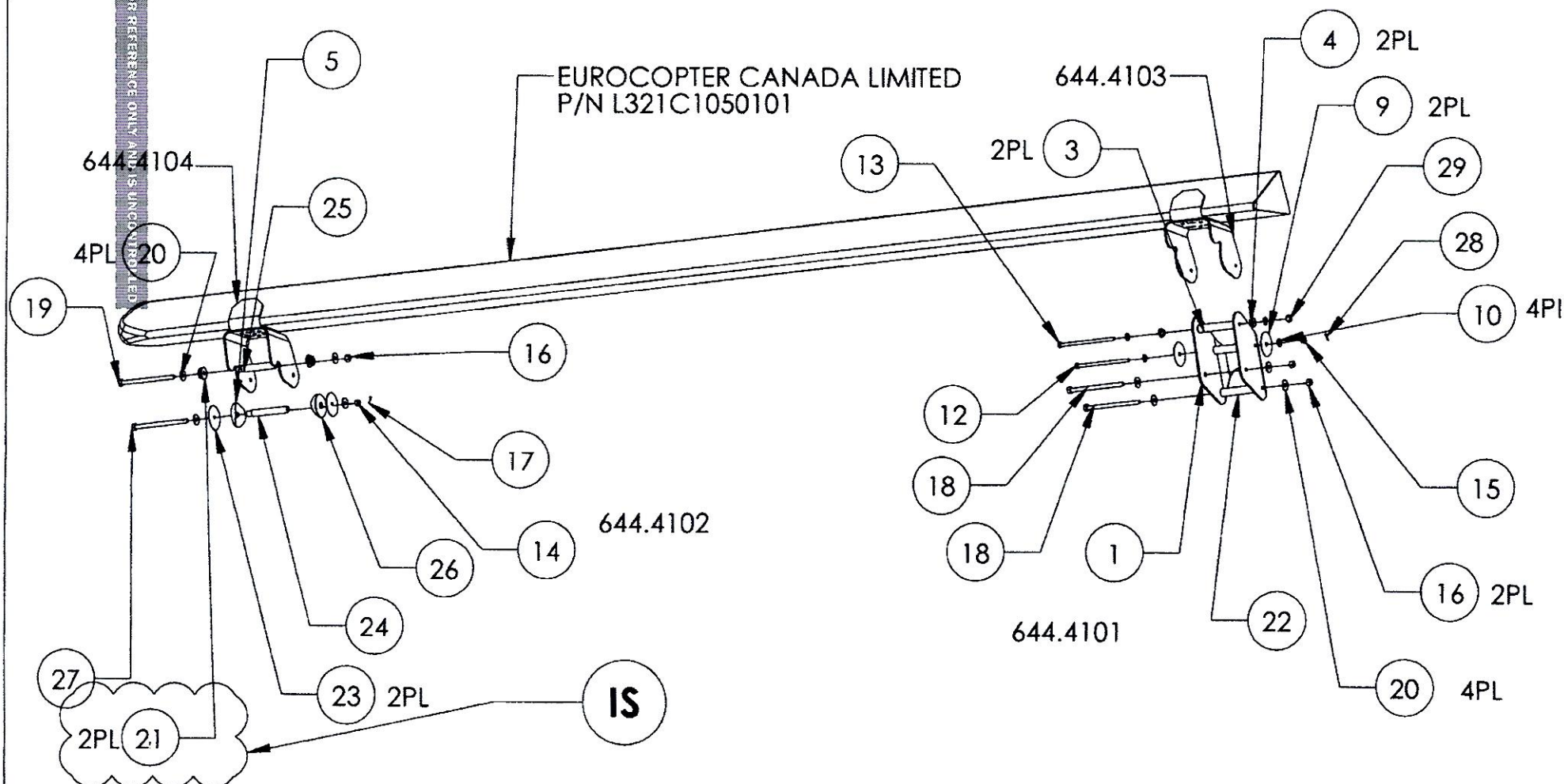
TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: REVISED F/N CALL OUT FROM 22 TO 21

ECR:

13-151

SHEET 1, ZONE D1 IS:



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

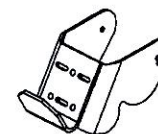
DER REVIEW REQUIRED

☐ YES ☒ NO

NOTES:

-
- 644.4102

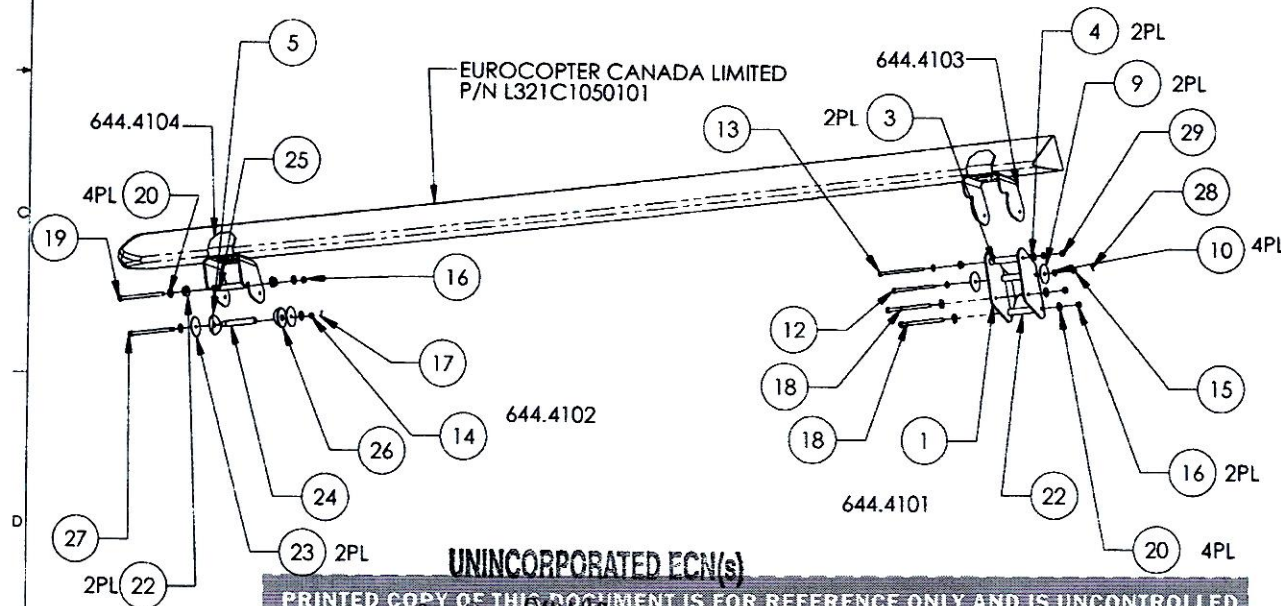
644.4102



644.4103



644.4104



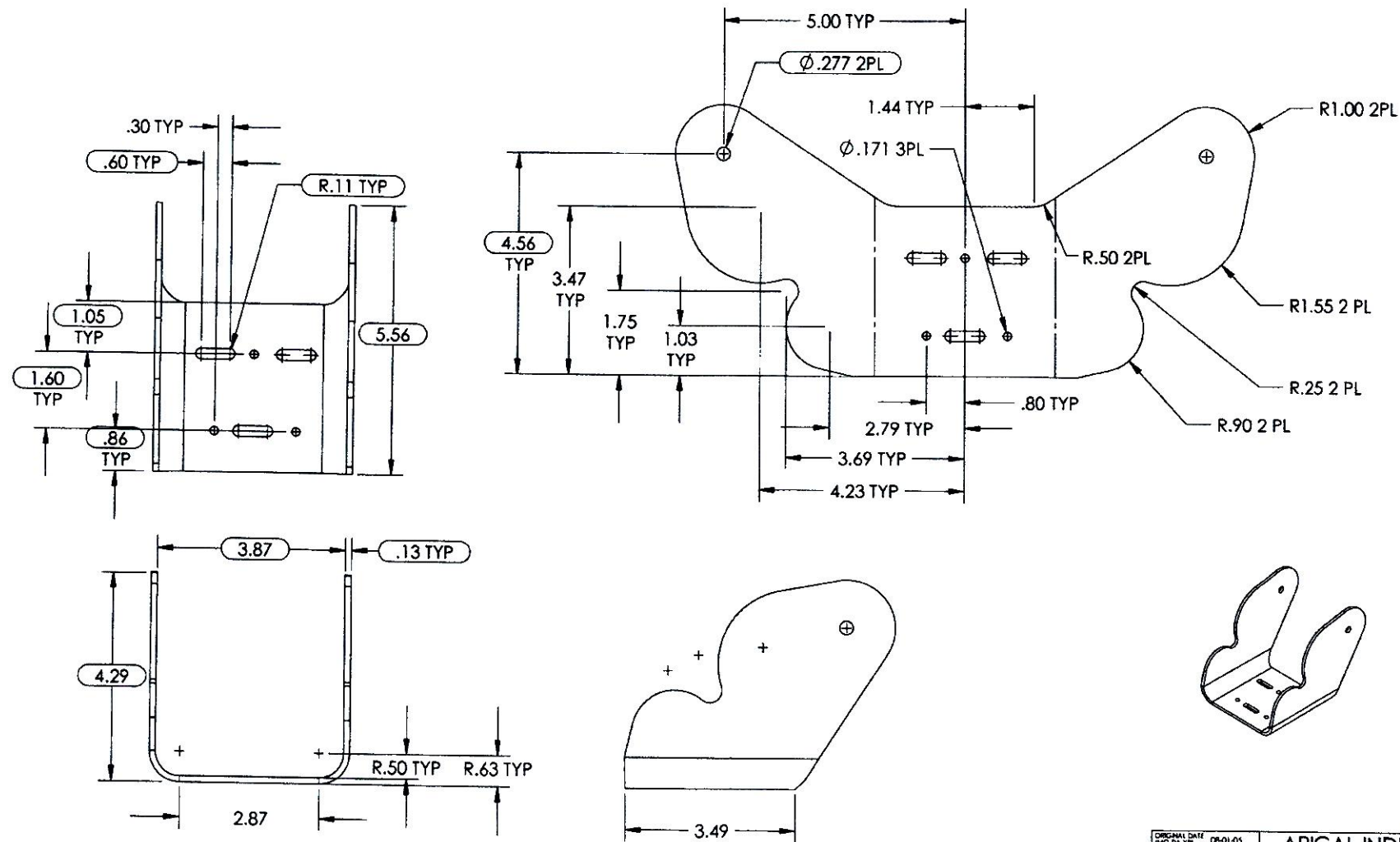
UNINCORPORATED ECN(s)

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REVIEWS			
REV.	DESCRIPTION	DATE	APPROVED
A	INCORPORATED ECH 01310, 01322, 01333, & 01357	11-22-05	S. JOSEPH
B	INCORPORATED ECH 01370, 01418, 01796, & 01836	05-21-07	P. BRAYO
C	INCORPORATED ECH 01908, 02236, 03022	12-16-10	P. BRAYO
D	INCORPORATED ECH 03111, 03113, 03208, & 03740	12-10-12	P. BRAYO
E	INCORPORATED ECH 03941	06-19-13	P. BRAYO
F	INCORPORATED ECH 54006	2-29-15	P. BRAYO

			1	29	601.3273	LOCKNUT FULL	M52104AN4	
			1	28	601.2640	COTTER PIN	M524665-132	
			1	27	601.2328	BOLT, HEX	AN5-45	
			1	26	644.4124	WASHER, PIVOT	△ △ △	
			1	25	644.4123	PWD CROSS-TUBE BUSHING	△ △ △	
			1	24	644.4122	PWD CROSS-TUBE BUSHING	△ △ △	
			2	23	644.4121	WASHER, NYLON	△ △ △	
			1	22	644.4120	SPACER, CROSS-TUBE	△ △ △	
			2	21	644.4119	SPACER, PWD STOP	△ △ △	
			4	20	601.2110	WASHER, FLAT THICK	MAS1149C 05038	
			1	19	601.2250	BOLT, HEX	AN5-30	
			2	18	601.2249	BOLT, HEX	AN5-43A	
			1	17	601.3315	COTTER PIN	M524665-210	
			1	2	16	601.3272	LOCKNUT FULL	M52104AN5
			1	15	601.1435	NUT, HEX CASTLE FULL	AN310-4	
			1	14	601.3270	NUT, HEX CASTLE FULL	AN310-5	
			1	13	601.3407	BOLT, HEX	AN4-47A	
			1	12	601.2434	BOLT, HEX	AN4-45	
6	3		1	11	601.2326	RIVET, COUNTERSUNK	M520464D-5	
			4	10	601.0863	WASHER, THICK	MAS1149C 04638	
			2	9	644.4118	WASHER, NYLON	△ △ △	
			1	8	644.4117	BRACKET, PWD PIVOT	△ △ △	
			7	6	644.4116	BRACKET (SMALL), PWD	△ △ △	
			1	6	644.4115	BRACKET (SMALL), AFT	△ △ △	
			1	5	644.4114	WASHER, PIVOT	△ △ △	
			2	4	644.4113	SPACER, STOP	△ △ △	
			2	3	644.4112	SPACER	△ △ △	
			1	2	644.4111	BRACKET, AFT PIVOT	△ △ △	
			1	1	644.4110	BRACKET (LARGE), AFT	△ △ △	
			1		644.4104	PWD BRACKET ASSY		
			1		644.4103	AFT BRACKET ASSY		
					644.4102	PIVOT STEP ASSY		
					644.4101	PIVOT STEP ASSY		
4104	1034	1024	4101	FIND #	PART #	DESCRIPTION	MAT'L	SPEC.
QTY				PARTS LIST				
NEXT ASSY (S)				APICAL INDUSTRIES				
644.1800				2608 TEMPLE HEIGHTS DR.				
				OCEANSIDE, CA. 92056-3512 (760) 724-5306				
				PIVOT STEP ASSY				
ORIGINAL DATE 08-01-05 DRAWN BY J-CREGER DIMENSION 1/16 IN. APPROVED BY J-CREGER DATE 08-01-05 CONTRACT NO.				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 2 PLACE DECIMALS ±.030 ANGLES ±.5°				REV. 1 SCALE: NONE SHEET 1 OF 4
BFF CASH CODE D 07M76				DWG NO 644.4100				

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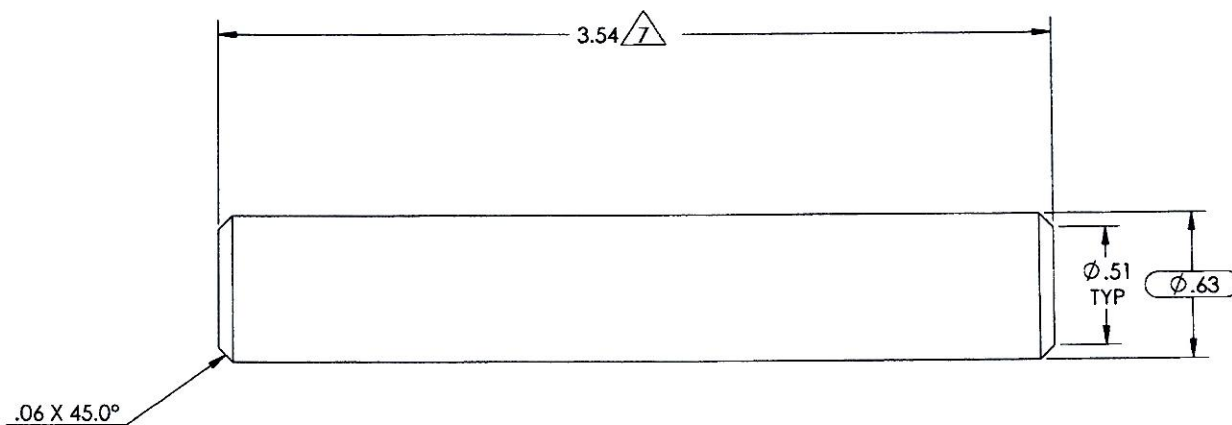


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644.4111
BRACKET, AFT PIVOT

ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. J. BURCH		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY S. JOSEPH		PIVOT STEP ASSY	
DRAWING APPROVAL S. JOSEPH 08-27-05		SCALE NONE	
CONTRACT NO.		SHEET 3 OF 16	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .5°		CAGE CODE 8 07M26 DWG. NO. 644.4100 REV. F	

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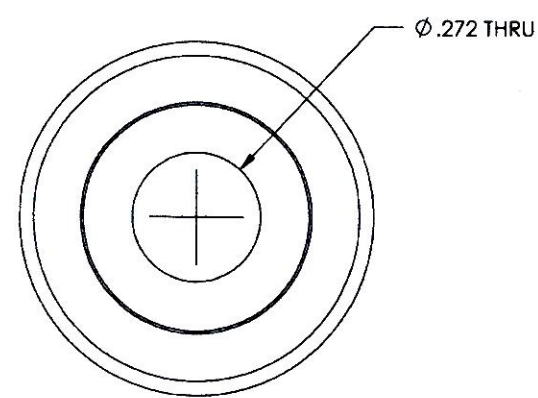
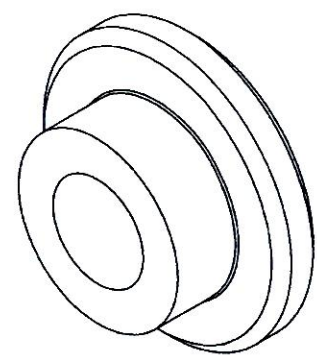
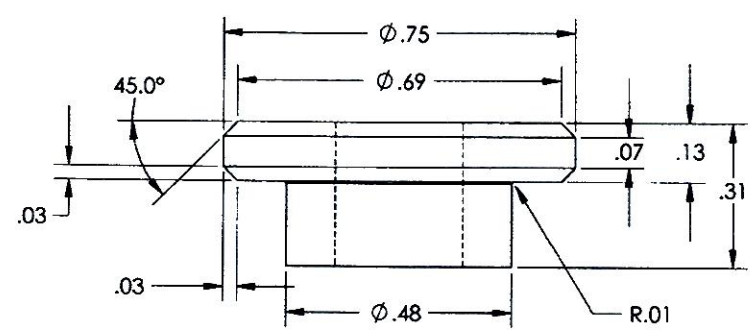


644.4112
SPACER

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ORIGINAL DATE: 08-01-05		APICAL INDUSTRIES	
DRAWN BY: J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL: J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO:		SCALE: NONE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS: ±.00 3 PLACE DECIMALS: ±.010 ANGLES: ±.5°		SERIAL: B	REV: F
CAGE CODE: 07M26		DWG NO: 644.4100	
SHEET: 4 OF 16		SHEET: 4 OF 16	

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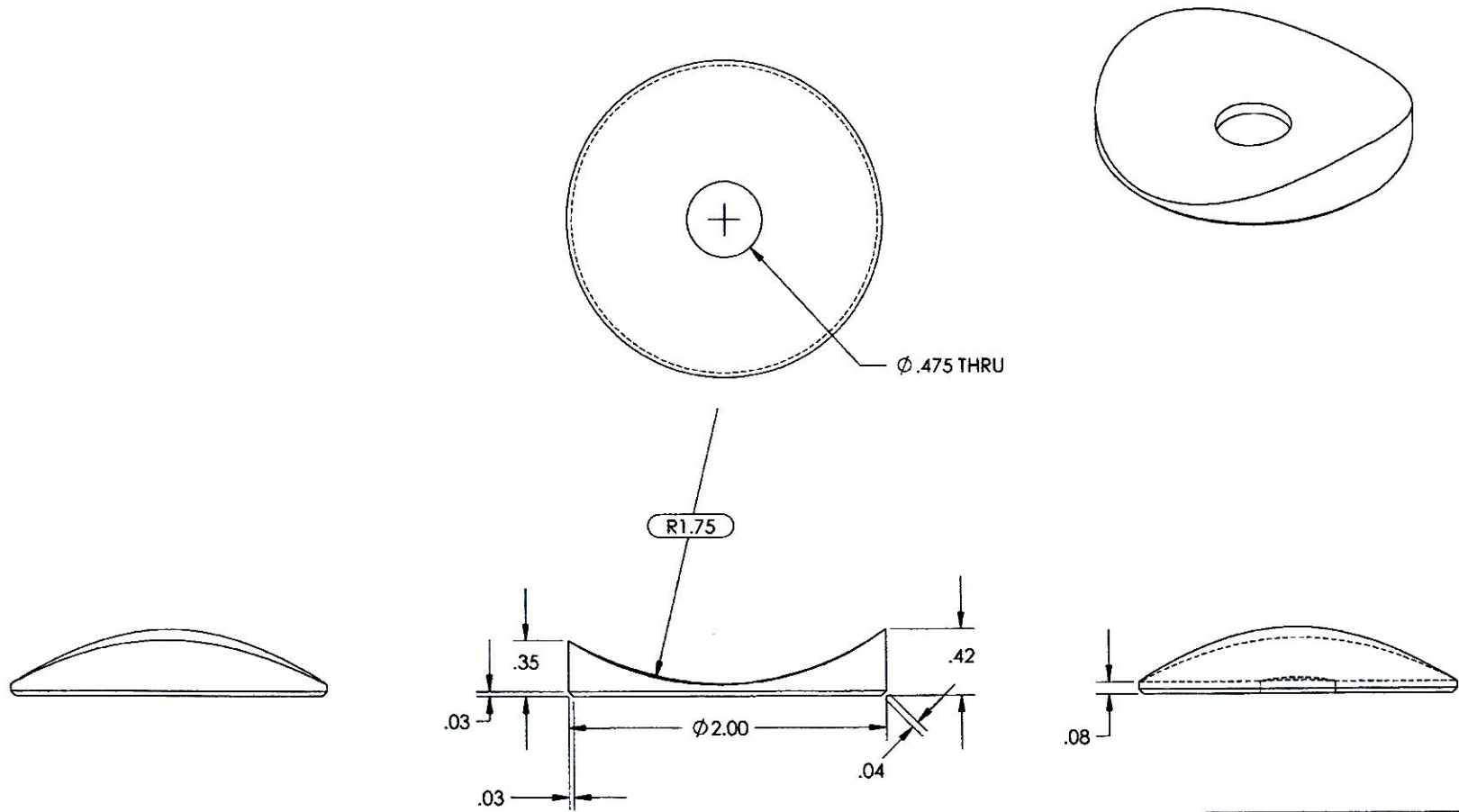


644.4100
SPACER, STOP

PRINTED COPY OF THIS DOCUMENT IS FOR REFERENCE ONLY AND IS UNCONTROLLED

ORIGINAL DATE	08-01-05	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
DESIGNED BY	CHUCKER				
DRAWN BY	S. JOSEPH	PIVOT STEP ASSY			
DRAWING APPROVAL	S. JOSEPH 08-24-05				
CONTRACT NO.					
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SERIAL	CAGE CODE	DWG. NO.	REV.
		B	07M26	644.4100	F
		SCALE NONE		SHEET 5 OF 16	

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644.4114
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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. PARROTT		2608 TEMPLE HEIGHTS DR.	
CHECKED S. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL S. JOSEPH 08-01-05		PIVOT STEP ASSY	
CONTRACT NO.		SHEET 6 OF 16	REV F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE 2 PLACE DECIMALS $\pm .01$ 3 PLACE DECIMALS $\pm .010$ ANGLES 1:5		SCALE NONE	644.4100

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BRACKET (SMALL) FWD

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ORIGINAL DATE: 08-01-05
DRAWN BY: J. JOSEPH
D. PARROT: J. JOSEPH
DRAWING APPROVAL: J. JOSEPH 08-29-05
CONTRACT NO.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS ±.03
3 PLACE DECIMALS ±.010
ANGLES ±.5°

SRE CAGE CODE DWG. NO. 644.4100
B 07M26
SCALE: NONE

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5112

PIVOT STEP ASSY

SHEET 8 OF 8

BRACKET (SMALL), FWD

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ORIGINAL DATE (MCO-DA-18)	08-01-05	APICAL INDUSTRIES			
DRAWN BY	J. JOSEPH	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300			
DRAWING APPROVAL	J. JOSEPH 08-29-05	PIVOT			
CONTRACT NO.		PIVOT 724-5300			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 2 PLACE DECIMALS - 0.03 3 PLACE DECIMALS - 0.010 FINISHES -		QTY B	CASE CODE 07M26	DWG. NO. 644.4100	REV. F
		CATALOG NAME SHEET		8 OF 16	

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1 2 3 4 5 6 7 8

A

B

C

D

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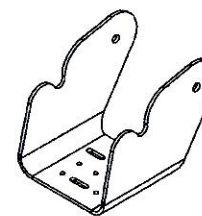
BRACKET, FWD PIVOT

ORIGINAL DATE: 08-01-05
DRAWN BY: J. JOSEPH
CHECKED: J. JOSEPH
DRAWING APPROVAL: J. JOSEPH 08-29-05
CONTRACT NO.:
UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
2 PLACE DECIMALS: ±.03
3 PLACE DECIMALS: ±.010
ANGLES: ±.5°

APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA 92056-3512 (760)724-6300

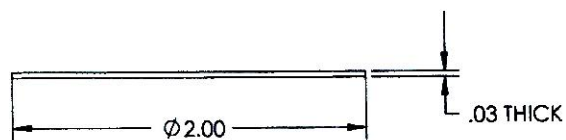
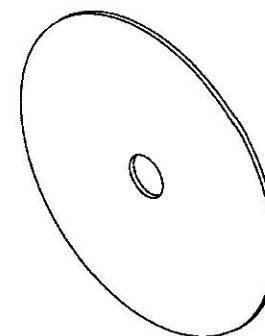
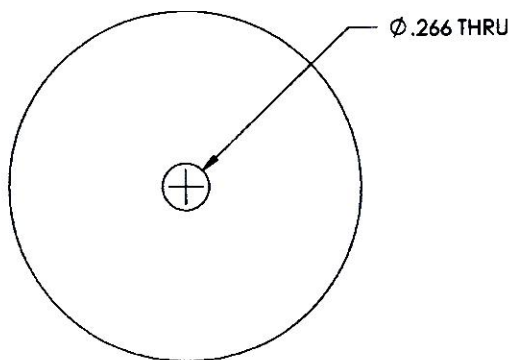
PIVOT STEP ASSY

SHEET 9 OF 16



ORIGINAL DATE (DD-MM-YY)	08-01-05	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING BY	TOUCHE		
D.P.A. BY	S. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL	S. JOSEPH 08-29-05		
CONTRACT NO.		REV CAGE CODE DWG. NO. 644.4100 REV. SCALE NONE SHEET 9 OF 16	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES 2 PLACES DECIMALS ± .010 3 PLACES DECIMALS ± .005 ANGLES ± .5°			

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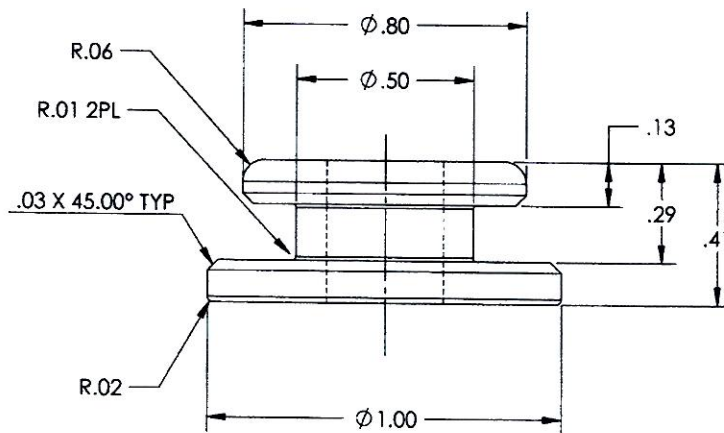
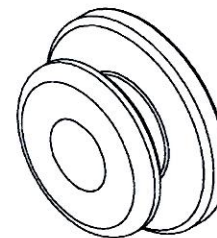
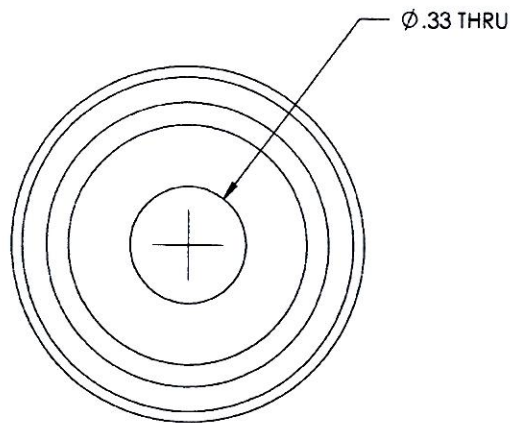


644.4118
WASHER, NYLON

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DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SER. CAGE CODE B 07MA26	DWG. NO. 644.4100
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 ANGLES ±.1°		SCALE NONE	SHEET 10 OF 16

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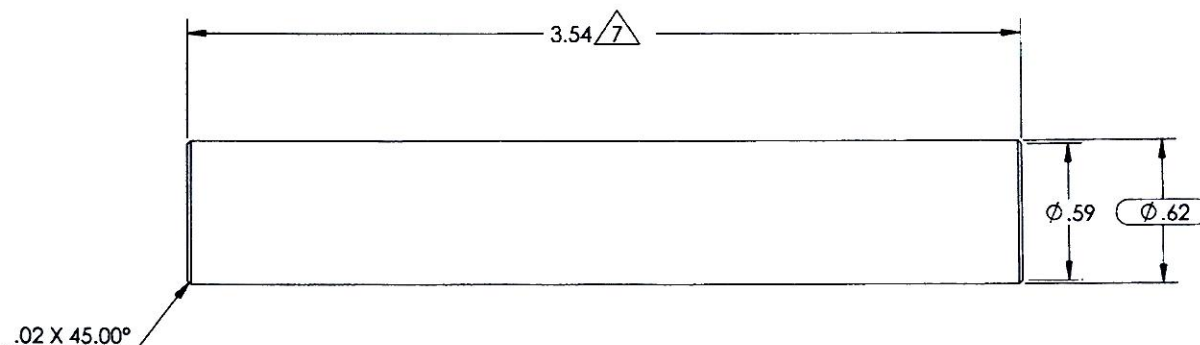


644.4119
SPACER, FWD STOP
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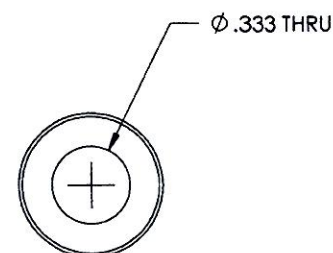
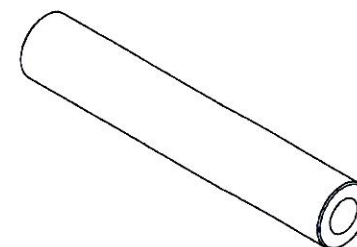
ORIGINAL DATE 08-01-05	APICAL INDUSTRIES		
DRAWN BY D. J. RYAN	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
CHECKED BY J. JOSEPH	PIVOT STEP ASSY		
DRAWING APPROVAL J. JOSEPH 08-29-05			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.02 3 PLACES DECIMALS ±.010 ANGLES ±.5°	SER B	CAGE CODE 07M26	DWG NO. 644.4100
			REV. F
	SCALE NONE		SHEET 11 OF 16

1 2 3 4 5 6 7 8

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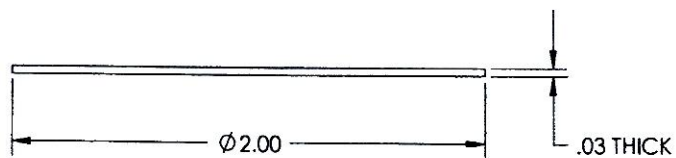
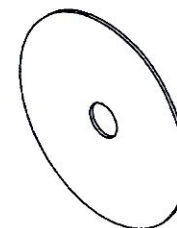
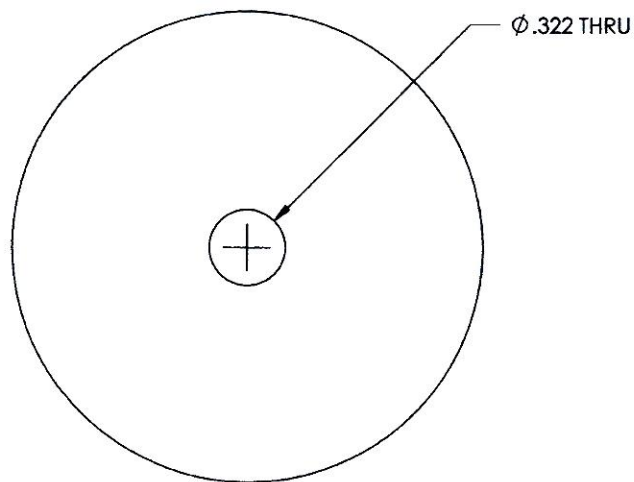
644.4120
SPACER, CROSS-TUBE



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ORIGINAL DATE 05-01-05	APICAL INDUSTRIES	
DRAWN BY D. PARROTT	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300	
CHECKED BY S. JOSEPH	PIVOT STEP ASSY	
DRAWING APPROVAL S. JOSEPH 08-26-05	SET / CAGE CODE B / 07M16	DWG. NO. 644.4100
CONTRACT NO.	SCALE NONE	SHEET 12 OF 16
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .03 3 PLACE DECIMALS ± .010 ANGLES ± .5°		

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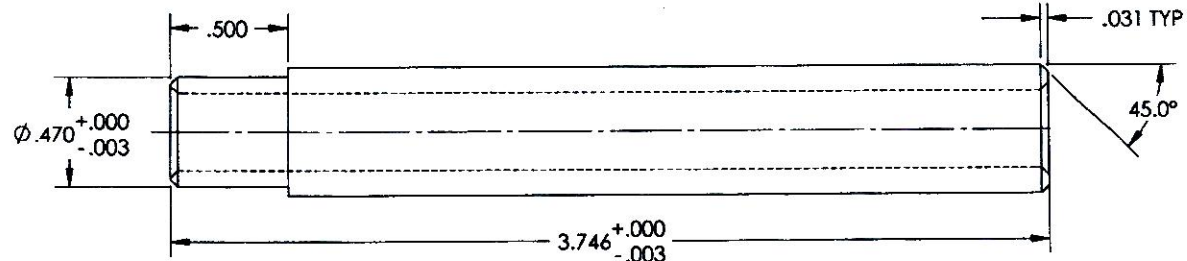
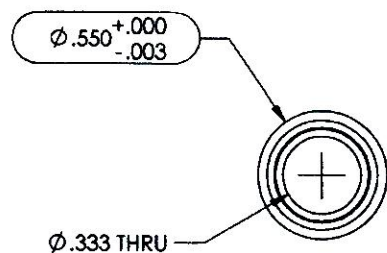
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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY D. PARROTT		2608 TEMPLE HEIGHTS DR.	
CHECKED S. JOSEPH		OCEANSIDE, CA. 92056-3512 (760)724-5380	
DRAWING APPROVAL S. JOSEPH 08-09-05		PIVOT STEP ASSY	
CONTRACT NO.		REV. F	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°		SEE CAGE CODE B 07A26	DWG. NO. 644.4100
SCALE NONE		SHEET 13 OF 16	

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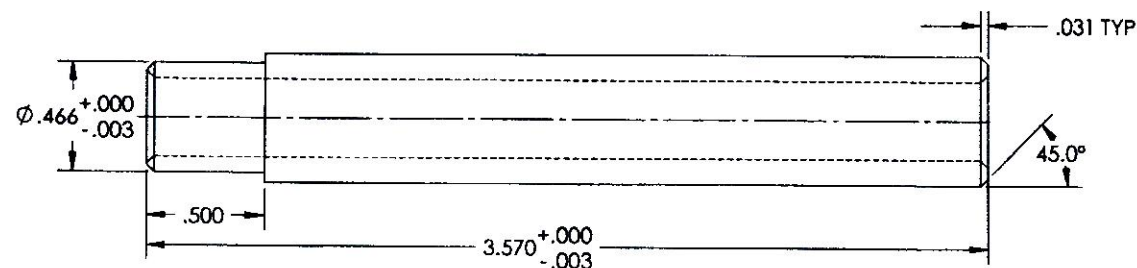
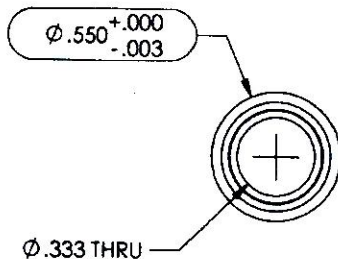


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DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR.	
CHECKED BY J. JOSEPH		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL J. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SIZE B	CAGE CODE 07MA26
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		DWG. NO. 644.4100	REV. 1
SCALE: NONE		SHEET 14 OF 16	

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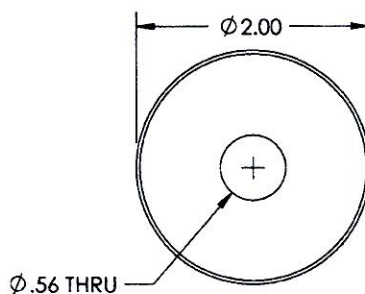
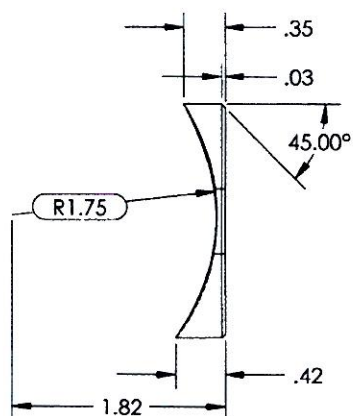


644.4123

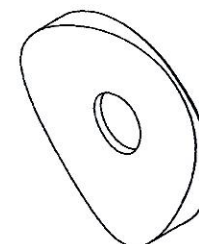
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ORIGINAL DATE 08-01-05		APICAL INDUSTRIES	
DRAWN BY C. CHICKER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY S. JOSEPH		OCEANSIDE, CA. 92056-3512 (760) 724-5300	
DRAWING APPROVAL S. JOSEPH 08-29-05		PIVOT STEP ASSY	
CONTRACT NO.		SER B	REV F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .005 3 PLACE DECIMALS ± .003 ANGLES ± .5°		CAGE CODE 07M26	DWG. NO. 644.4100
		SCALE NONE	SHEET 15 OF 16

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DRAWN BY J. JOSEPH		2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
DRAWING APPROVAL 1.03.00 08-27-05		PIVOT STEP ASSY	
CONTRACT NO.		SIZE B	REV. F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.03 3 PLACE DECIMALS ±.010 ANGLES ±.5°		CAGE CODE 07MZ6	DWG. NO. 644.4100
SCALE: NONE		SHEET 16 OF 16	